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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,814	08/13/2001	Klaus Wilbuer	SWR-0055	4734
23413	7590	11/05/2004	EXAMINER	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			UHLIR, NIKOLAS J	
			ART UNIT	PAPER NUMBER
			1773	
DATE MAILED: 11/05/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/856,814

Applicant(s)

WILBUER ET AL.

Examiner

Nikolas J. Uhlir

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 5, 8, 10-22, 26, 33-36 and 39-46 is/are pending in the application.  
4a) Of the above claim(s) 11, 13, 15-22, 26, 33-36 and 39-44 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1, 5, 8, 10, 12, 14 and 45-46 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 08/13/2004  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This office action is in response to the amendment/arguments dated 08/11/2004. Currently, claims 1, 5, 8, 10-22, 26, 33-36, and 39-46 are pending, with claims 11, 13, 15-22, 26, 33-36, and 39-44 withdrawn from consideration.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 requires the p[roperty changing component to change at least one surface property selected from a group of properties including "technical power properties." What constitutes a "technical power property" is not defined by the specification or the claims, and the term is not generally known in the art. Therefore it is unclear to the examiner what exactly a "technical power property" is. Clarification is required.

#### ***Claim Rejections - 35 USC § 102***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1, 5, 8, 14, and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Yokoyama et al. (US4880687).

6. The rejection of claim 1 is maintained as set forth in the prior office action. Regarding the new limitation in claim 1 requiring the property changing component to

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change at least one surface property of the group consisting of sealing capacity, stretch resistance, impact resistance, compatibility with lubricants, dyes, and hydraulic media, technical power properties, or the ability to be cleaned and hardened, the examiner take the position that Yokoyama meets this limitation. As set forth in the prior office action, Yokoyama teaches that the amount of fluorine in the plasma polymerized films impacts the durability of the film (column 16, lines 5-7). As noted by Yokoyama, magnetic media have some problems with durability due to contact with the magnetic head used to read the media (column 1, lines 33-41). Contact with a magnetic head occurs when the magnetic head impacts the media. Thus, an improvement in durability is equivalent to an improvement in impact resistance. Thus, the examiner takes the position that the fluorine in the plasma polymerized films of Yokoyama changes the impact resistance of the film, and thus anticipates claim 1.

7. The rejection of claim 5 is maintained as set forth in the prior office action and as modified above.

8. Regarding claim 8. The plasma-polymerized films of Yokoyama comprises a polymer binder and fluorine as an additive. Thus, the plasma-polymerized films of Yokoyama are synthetic films. Further, the fluorine is contained in the plasma-polymerized film and thus is embedded in the film. Finally, the limitation requiring the additive to "contain" the property changing component(s) does not require the additive to be something in addition to the property changing components. The additive could be the property changing components themselves. Thus, the examiner takes the position

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that the fluorine in Yokoyama is equivalent to applicant's claimed additive containing property-changing components.

9. Regarding claim 14. The requirement that the surface be "structured" does not impute that the structure must have a non-uniform surface (i.e. that it must have areas of varying thickness, bumps, protrusions, etc.). Therefore any surface reads on this limitation because any surface is structured. Thus, the substrate surface of Yokoyama reads on this limitation.

10. The rejection of claim 45 is maintained as set forth in the prior office action.

11. Claims 1, 5, 8, 10, 12, 14 and 45-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al. (US5480685).

12. Regarding claim 1, Suzuki teaches a magnetic recording medium comprising a substrate (equivalent to applicants claimed work piece), an adhesive layer on the substrate a first magnetic layer on the adhesive layer, and a second magnetic layer on the first magnetic layer (column 11, line 40-column 12, lines 30 and figure 18). The first magnetic layer comprises a binder contains particles of  $\gamma$ -iron oxide (column 12, lines 1-2). The second magnetic layer comprises a binder and particles of carbonyl iron, zinc ferrite, manganese zinc ferrite, nickel, magnetite, permalloy, sendust, and alperm (column 12, lines 7-13). These particles are considered to be equivalent to applicants claimed property changing component. The first magnetic layer and the second magnetic layer are considered to be equivalent to applicants claimed layer like areas.

13. As shown by figure 18, the lower magnetic layer has protrusions (marked 85a).

The magnetic particles in the first magnetic layer collect densely at and near the protrusions (column 21, lines 23-30). Thus, as the magnetic particles in the first magnetic layer are densely collected at or near the protrusions, there must necessarily be a concentration gradient in both the thickness and width wise directions of the first magnetic layer. Thus, the gradient limitation in claim 1 is met.

14. Regarding the requirement that the property changing component control one of the properties specified. Although not expressly taught by Suzuki, the examiner takes the position that this limitation is met. This is due to the fact that the addition of metal particles will necessarily change several of the properties claimed by the applicant. For example, metal particles are necessarily harder than polymeric binders. Thus, the addition of metal particles (as done by Suzuki) will change the impact resistance of the film. Further, the applicant in the specification lists magnetic particles as suitable property changing components that impact these properties. Thus, as Suzuki uses magnetizable particles, this limitation is met.

15. Regarding claim 5. It is clear from figure 18 of Suzuki that an interface running crosswise to the surface contours of the basic media (the substrate) is formed between the first and second magnetic layers. Thus, Suzuki anticipates the limitations of claim 5.

16. Regarding claim 8, the magnetic layers of Suzuki are comprised of a polymeric binder and magnetic particles in the binder. Thus, the limitations of claim 8 are met.

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17. Regarding claim 10, these limitations are met as set forth above. Specifically, as noted above, Suzuki teaches using different types of magnetic particles in each magnetic layer. Thus, Suzuki anticipates claim 10.

18. Regarding claim 12, the surface of the adhesive layer meets applicants requirement of surfaces lying in different planes.

19. Regarding claim 14, this limitation is met as set forth above. Either the surface of the substrate or the adhesive layer of Suzuki are structured.

20. Regarding claim 45, this claim is met as set forth above. Suzuki teaches a magnetic recording medium. Magnetic recording media are widely used in the claimed industries for the purpose of storing data. Thus, Suzuki anticipates claim 45.

21. Regarding claim 46, this limitation is met as set forth above, as Suzuki teaches the use of metallic alloy particles.

22. Claims 1, 8, 10, 14, and 45-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Tannenbaum (WO92/10309).

23. Regarding claim 1, Tannenbaum teaches coating a metal substrate with a primer layer and a topcoat (pages 5-6, tables). The primer comprises a polyamide binder and two different types of perfluoropolyether lubricants (page 5 table). The topcoat comprises an acrylic latex binder and only one type of perfluoropolyether lubricant (page 6, table). The fluoropolymers in each layer are considered to be equivalent to applicants claimed property changing component. The dual layer in Tannenbaum is equivalent to applicants claimed coating with layer like areas.

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24. As a result of using two perfluoropolyether lubricants in the primer layer, a concentration gradient occurs in the primer layer, where the fluoropolymer stratifies away from the substrate interface, thereby resulting in improved adhesion (page 3, lines 20-25). This stratification is considered to be equivalent to applicant's requirement that one layer have a concentration of property changing component that changes in the thickness direction.

25. Regarding the specific function of the property changing component required by claim 1, Tanenbaum teaches that the invention results in good food release and tiger paw (a durability test) durability. Thus, the lubricant in Tanenbaum improves at least the ability of the coating to be cleaned.

26. Thus Tanenbaum anticipates claim 1.

27. Claim 8 is met as set forth above for claim 1.

28. Claim 10 is met as set forth above for claim 1 (the polymers in each layer are different)

29. Claim 14 is met as set forth above for claim 1 (any surface is "structured").

30. Regarding claim 45, Tanenbaum teaches that the coating is to be used on cookware. Thus, it is useful in the food industry.

31. Claim 46 is met as set forth above for claim 1 (the perfluoropolyether lubricant in Tanenbaum is either a solid lubricant or a non-metallic resin).

### ***Response to Arguments***

32. Applicant's arguments filed 08/11/04 have been fully considered but they are not persuasive. Applicants argue that Yokoyama fails to teach a property changing



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component which performs one of the required functions in claim 1. The examiner disagrees. As clearly explained above, Yokoyama is directed towards improving the durability of a magnetic recording media, where the durability issue arises from the contact of the media with a magnetic head. This contact between the head and the media is an impact. Thus, an improvement in durability of a magnetic recording media is accurately described as an improvement in the impact resistance of the media to impacts from the magnetic head. Thus, this argument is unpersuasive.

33. Applicants remaining arguments either stem from the one just discussed or are clearly addressed in the body of the rejection above. Thus, these arguments are not persuasive.

### ***Conclusion***

34. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikolas J. Uhlir whose telephone number is 571-272-1517. The examiner can normally be reached on Mon-Fri 7:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on 571-272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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